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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.  | CONFIRMATION NO. |
|--|-------------|----------------------|----------------------|------------------|
| 10/028,616   | 12/21/2001  | Gundu M. Sabde       | 150.0110 0101        | 6755             |
| 26813  | 7590        | 02/13/2004           | EXAMINER             |                  |
| MUETING, RAASCH & GEBHARDT, P.A.<br>P.O. BOX 581415<br>MINNEAPOLIS, MN 55458 |             |                      | MCDONALD, SHANTESE L |                  |
|  |             |                      | ART UNIT             | PAPER NUMBER     |
|  |             |                      | 3723                 | 14               |

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/028,616

Applicant(s)  
Sabde

Examiner  
McDonald, Shantese

Art Unit  
3723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Apr 30, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russell et al. in view of James et al.

Russell et al. teaches a planarization method comprising positioning a Group VIII metal-containing surface, which is elemental platinum and a platinum alloy, (col. 3, lines 33-38), of a substrate, the substrate being a wafer, to interface with an abrasive article and supplying a planarization composition which comprises an oxidizing agent, (col. 5, line 20). Russell et al. also teaches providing a wafer having a patterned dielectric layer formed thereon and a Group VIII metal-containing layer formed over the patterned dielectric layer, (col. 1 line 57-col. 2, line 22). Russell et al. teaches all the limitations of the claims except for the abrasive article being a fixed abrasive article comprising a plurality of abrasive particles which are CeO<sub>2</sub> having a hardness no greater than about 6.5 Mohs dispersed within a binder adhered to at least one surface of a backing material, the Group VIII metal being present in an amount of about 10, 20 or 50 atomic percent or more and the Group VIII surface being removed relative to the dielectric

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layer at a ration of at least 10:1. James et al. teaches an abrasive article being a fixed abrasive article comprising a plurality of abrasive particles which are  $\text{CeO}_2$  having a hardness no greater than about 6.5 Mohs, (col.5, lines 40-45) dispersed within a binder, (col. 10, lines 13-31), adhered to at least one surface of a backing material, (col. 13, lines 1-4). James et al. teaches that polishing can be performed with free abrasives in a polishing fluid and a polishing pad devoid of fixed abrasives, (col. 2, lines 30-33), and also with a fixed abrasive pad, with a polishing solution, free of abrasives. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the pad of Russell with the fixed pad, as taught by James, in order to enhance the planarizing capabilities.

It would have been further obvious to provide the method of Russell with the Group VIII metal being present in an amount of about 10, 20 or 50 atomic percent or more dependant upon the substrate type, and the Group VIII surface being removed relative to the dielectric layer at a ration of at least 10:1, in order to control the removal rate, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

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4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantese McDonald whose telephone number is (703) 308-8722.

A handwritten signature in black ink, appearing to read "Joseph J. Hail, III".

Joseph J. Hail, III  
Supervisory Patent Examiner  
Technology Center 3700

S.L.M.

January 30, 2004